

# EXHIBIT 17

Attorney's Docket No.: 43273-506001US

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant :	Jose Bobby	Art Unit :	2476
Serial No. :	10/700,342	Confirmation No.:	5281
Filed :	November 3, 2003	Examiner :	Chuong T. Ho
Title :	SIGNAL COMMUNICATION COORDINATION		

**Mail Stop Amendment**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REPLY TO NON-FINAL OFFICE ACTION MAILED NOVEMBER 8, 2011**

This reply is responsive to the Non-Final Office Action mailed November 8, 2011. The undersigned respectfully requests reconsideration and allowance of the present application in view of the following amendments and remarks.

**Amendments to the Claims** begin on page 2 of this paper.

**Remarks** begin on page 7 of this paper.

CERTIFICATE OF ELECTRONIC TRANSMISSION

I hereby certify that this correspondence is being electronically transmitted to the Patent and Trademark Office on the date indicated below in accordance with 37 CFR 1.8(a)(1)(i)(C).

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**Amendments to the Claims**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. – 8. (Canceled)

9. (Currently Amended) An apparatus ~~access station for wireless communications,~~  
the access station comprising:

a wireless input/output (I/O) unit that is configured to establish a plurality of access points; and

signal transmission/reception coordination logic that is capable of ascertaining, by monitoring the plurality of access points for received signals, that ~~an~~ a first access point of the plurality of access points is receiving a first signal and that is adapted to restrain at least ~~one~~ ~~other~~ a second access point of the plurality of access points from transmitting ~~another~~ a second signal responsive to the ascertaining that the first access point is receiving the first signal.

10. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 9, wherein the plurality of access points established by the wireless I/O unit are co-located.

11. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 9, wherein the wireless I/O unit operates in accordance with at least one IEEE 802.11 standard.

12. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 9, wherein the signal received by the access point comprises at least one uplinked packet.

13. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 9, wherein the signal received by the access point comprises at least a portion of an uplinked packet.

14. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 13, wherein the at least a portion of the uplinked packet comprises at least part of a preamble of the uplinked packet.

15. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 9, wherein the signal transmission/reception coordination logic ~~also~~ restrains at least two other access points of the plurality of access points from transmitting signals responsive to the ascertaining that the first access point of the plurality of access points is receiving the first signal.

16. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 9, wherein the signal transmission/reception coordination logic ~~also~~ restrains ~~the~~ at least ~~one other~~ the second access point of the plurality of access points from transmitting a downlink signal responsive to the ascertaining that the first access point of the plurality of access points is receiving the first signal.

17. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 9, wherein the signal transmission/reception coordination logic ~~also~~ restrains the at least one other access point of the plurality of access points from transmitting the other signal on a first channel responsive to the ascertaining that the access point of the plurality of access points is receiving the signal on a second different channel.

18. - 19. (Canceled)

20. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 9, wherein the signal transmission/reception coordination logic ~~also~~ restrains ~~the~~ at least ~~one other~~ the second access point of the plurality of access points while the first access point is receiving the first signal.

21. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 9, wherein each access point of the plurality of access points corresponds to a communication beam of a plurality of communication beams that emanate from the access station.

22. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 9, wherein each access point of the plurality of access points is associated with a medium access controller/baseband unit pair.

23. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 9, wherein the signal transmission/reception coordination logic comprises medium access controller coordination logic.

24. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 23, wherein the medium access controller coordination logic is ~~physically distributed to link~~ links two or more access stations.

25. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 9, wherein the signal transmission/reception coordination logic ~~operates at~~ affects a baseband unit level.

26. (Currently Amended) The ~~access station as recited in~~ apparatus of claim 9, wherein the signal transmission/reception coordination logic ~~operates at~~ affects a radio frequency (RF) ~~level~~ part.

27. – 106. (Canceled)

107. (Currently Amended) An apparatus ~~access station for wireless communications in a wireless system, the access station~~ comprising:

a wireless input/output (I/O) unit that is configured to establish a plurality of access points; and

signal transmission/reception coordination logic that is capable of ascertaining, by monitoring the plurality of access points for received signals, that:

a first access point of the plurality of access points is receiving a first signal on a first channel,

a second access point of the plurality of access points is receiving a second signal that is ongoing on a second channel, and that restrains the signal transmission/reception coordination logic adapted to restrain at least a second third access point of the plurality of access points from transmitting a second third signal on a second third channel based on responsive to the ascertaining that the first access point is receiving the first signal and that the second access point is receiving the second signal that is with an ongoing transmission on a the second third channel,

wherein the restraining at least the third access point prevents degradation to the first and second signals to prevent distortion to other signals being wirelessly communicated in the wireless system.

108. (Currently Amended) The apparatus of access station as recited in claim 107, wherein the prevented ~~distortion~~ degradation to the first and second signals comprises inter-modulation distortion.

109. (Currently Amended) An ~~access station for wireless communications in a wireless system, the access station~~ apparatus comprising:

a wireless input/output (I/O) unit that is configured to establish ~~at least one a~~ plurality of access points point; and

signal transmission/reception coordination logic that restrains transmission from the at least one access point when another access point is expecting a short-term response to a frame that was transmitted by said another access point.

110. (Currently Amended) The apparatus of ~~access station as recited in~~ claim 109, wherein the short-term response to the frame comprises an immediate response to the frame.

111. (Currently Amended) The apparatus of ~~access station as recited in~~ claim 109, wherein the other access point is also established by the wireless I/O unit of the access station.

112. (Currently Amended) The apparatus of ~~access station as recited in~~ claim 109, wherein the other access point is established by a different access station.

113. (Currently Amended) The apparatus of ~~access station as recited in~~ claim 109, wherein the at least one access point and the other access point are operating on a same channel.

114. (Currently Amended) The apparatus of ~~access station as recited in~~ claim 109, wherein the at least one access point and the other access point are operating on different channels.

115. (Currently Amended) The apparatus of ~~access station as recited in~~ claim 114, wherein the different channels are adjacent.

116. (New) The apparatus of claim 107, wherein the prevented degradation to the first and second signals comprises interference.

**REMARKS**

Reconsideration and allowance are requested in light of this reply. The examiner is encouraged to contact the undersigned at +1.858.314.1535 or cakukkonen@mintz.com to discuss how best to advance prosecution of this case in light of this reply.

**Summary of Rejections**

The Office rejected claims 9-20, 107-109, 111, 114, and 115 under 35 U.S.C. §103(a) as unpatentable over U.S. Patent Application Publication No. 2003/0214961 to Nevo et al. (hereinafter, Nevo) in view of U.S. Patent Application Publication No. 2002/0031104 to Griffith et al. (hereinafter, Griffith); and rejected claims 21-26, 110, 112, and 113 under 35 U.S.C. §103(a) as unpatentable over Nevo in view of Griffith, and further in view of U.S. Patent No. 6,983,167 to Adachi et al. (hereinafter, Adachi).

**Summary of Amendments**

By this Amendment, claims 9-17, 20-26, and 103-115 are amended to more clearly define the features of those claims and improve form, claims 18, 19, 35-44 and 103-106 are canceled, without prejudice or disclaimer, and new claim 116 is added. Support for the amendments and new claim can be found at least at paragraphs [0046], [0089], and [0115]. No new matter has been added.

Claims 9-17, 20-26, and 107-116 are pending.



**Rejections under 35 U.S.C. §103**

The Office rejected claims 9-20, 107-109, 111, 114, and 115 under 35 U.S.C. §103(a) as unpatentable over Nevo in view of Griffith. The Office rejected claims 21-26, 110, 112, and 113 under 35 U.S.C. §103(a) as unpatentable over Nevo in view of Griffith, and further in view of Adachi. The undersigned respectfully traverses these rejections.

The Office “bears the initial burden of factually supporting any *prima facie* conclusion of obviousness” and must therefore present “a clear articulation of the reason(s) why the claimed invention would have been obvious.” In other words, if the cited references fail to disclose or at least fairly suggest each specific and explicit limitation of the claimed subject matter, the Office can present a valid *prima facie* case for obviousness under 35 U.S.C. §103(a) only by presenting a convincing line of reasoning as to why one of ordinary skill in the art at the time of conception of the instantly claimed subject matter would have reasonably found the claimed invention to have been obvious in light of the teachings of the references. See *e.g.* MPEP §706.02(j) citing *Ex Parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). The Office must therefore present a clear rationale supporting the assertion that all of the claimed elements were known in the prior art and that one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, to produce a combination yielding nothing more than predictable results to one of ordinary skill in the art. *KSR*, 82 USPQ2d at 1395. MPEP §2141.02 further notes that “a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). As described in detail below, the combination of the cited references fail to disclose or suggest the features of the currently pending claims and the Office has not

provided a valid *prima facie* case for obviousness under 35 U.S.C. §103(a).

Nevo describes a wireless device that includes two transceivers using different protocols. Nevo describes a first transceiver configured to support Bluetooth and communicate with a network device of a Bluetooth wireless network, and a second transceiver configured to support 802.11 and communicate with a network device of an 802.11 network. The wireless device includes a network manager to coordinate the two transceivers to allow the transceivers to communicate at the same time. The coordination includes selection of one of the two transceivers as dominant over the other where the dominant transceiver may notify the dominated transceiver to suspend transmission to avoid interference with the dominant transceiver. See Nevo at the Abstract, and paragraphs [0010] and [0011].

Nevo describes coordinating a frequency hopping transceiver (Bluetooth) and a potentially interfering 802.11 transceiver by determining the hopping pattern, selecting either the Bluetooth or the 802.11 transceiver as dominant, predicting the occurrence of interference, and preemptively notifying the dominated device to suspend transmission to avoid interference.

Indeed, paragraph [0055] of Nevo states,

Under either one of these embodiments, wireless device 100 basically operates as earlier described. Except wireless device 100 assumes the additional responsibilities of determining the pseudo random frequency hopping pattern of devices 104a (in one embodiment, including the interfering frequency), selecting either devices 104a or 104b to be the dominated devices, predicting the occurrence of interference, and preemptively notifying the dominated devices to suspend operation to avoid interference (in one embodiment, conditionally suspending operation).

Nevo at paragraph [0055].

Thus, Nevo coordinates by determining a pseudorandom frequency hopping pattern, predicting when interference will occur, and preemptively notifying the non-dominant transceiver to stop transmission.

In contrast, claim 9 recites a combination of features including “signal transmission/reception coordination logic that is capable of ascertaining, by monitoring the plurality of access points for received signals, that a first access point of the plurality of access points is receiving a first signal and that is adapted to restrain at least a second access point of the plurality of access points from transmitting a second signal responsive to the ascertaining that the first access point is receiving the first signal.” *Thus, the coordination logic of claim 9 ascertains, by monitoring the plurality of access points, that one access point is receiving a signal and in response restrains a second access point from transmitting an interfering signal.* Rather than a Nevo’s selecting a dominant transceiver, determining a hopping pattern, predicting when interference will occur, and preemptively preventing interference by notifying the dominated transceiver to stop transmission, claim 9 is directed to ascertaining by monitoring a plurality of access points that any first access point is receiving and restraining at least a second access point from transmitting.

The Office alleges that that Nevo’s coordination of transceivers is equivalent to the coordination logic of claim 9. But this is a clear error since nowhere does Nevo disclose or suggest “ascertaining, by monitoring the plurality of access points for received signals, that a first access point of the plurality of access points is receiving a first signal,” as recited in claim 9. Although Griffith generally describes determining an optimum segment size for a wireless link to improve the combined throughput of a wired network followed by a wireless network, Griffith fails to cure the above-noted deficiency of Nevo, nor does the Office allege that it does.

On page 3 of the Office Action, the Office acknowledges that Nevo fails to disclose or suggest the claim 9 feature, “a wireless input/output (I/O) unit that is configured to establish a plurality of access points,” and proffers Griffith at FIGs. 7 and 8, and paragraphs [0090] and [0099]. A careful scrutiny of Griffith reveals that it does not disclose what the Office alleges. At best, Griffith merely describes a single access point. FIG. 7 clearly shows a single transceiver not a plurality of access points. FIG. 8 shows a data interface architecture but does not disclose or suggest a plurality of access points. Furthermore, paragraphs [0090] and [0099] fail to disclose or suggest a plurality of access points. Moreover, Nevo fails to cure this deficiency in Griffiths.

For at least the reasons noted above, Nevo and Griffith, whether taken alone or in combination, fail to disclose or suggest at least the features of claim 9 including, “a wireless input/output (I/O) unit that is configured to establish a plurality of access points; and signal transmission/reception coordination logic that is capable of ascertaining, by monitoring the plurality of access points for received signals, that a first access point of the plurality of access points is receiving a first signal and that is adapted to restrain at least a second access point of the plurality of access points from transmitting a second signal responsive to the ascertaining that the first access point is receiving the first signal.” Accordingly, the rejection under 35 U.S.C. §103(a) of claim 9, and claims 10-26, at least by their dependency, should be withdrawn.

Although of different scope, independent claims 107 and 109 include features similar to claim 9. For at least the reasons noted above with respect to claim 9, claims 107 and 109 are allowable over Nevo and Griffith, whether taken alone or in combination, and the rejection under 35 U.S.C. §103(a) of these claims, and claims 108 and 111, 114, and 115, at least by their dependency, should be withdrawn.

Claims 21-26 depend from claim 9 and include all the features therefrom including “a wireless input/output (I/O) unit that is configured to establish a plurality of access points; and signal transmission/reception coordination logic that is capable of ascertaining, by monitoring the plurality of access points for received signals, that a first access point of the plurality of access points is receiving a first signal and that is adapted to restrain at least a second access point of the plurality of access points from transmitting a second signal responsive to the ascertaining that the first access point is receiving the first signal.” As noted above, Nevo and Griffith fail to disclose or suggest these features. Moreover, although Adachi describes a system for space division multiplexing, Adachi fails to cure the deficiencies of Nevo and Griffith. As such, the rejection under 35 U.S.C. §103(a) of claims 21-26 should be withdrawn.

Claims 110, 112, and 113 depend from claim 109 and claim 109 includes features similar to claim 9. As noted above, Nevo, Griffith, and Adachi fail to disclose or suggest these features. As such, the rejection under 35 U.S.C. §103(a) of claims 110, 112, and 113 should be withdrawn.

New claim 116 depends from claim 107 and is allowable at least by its dependency and the reasons noted above with respect to claim 107.

### **Concluding Remarks**

On the basis of the foregoing amendments, the pending claims are in condition for allowance. It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all

pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper.

The Commissioner is hereby authorized to charge any additional fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 43273-506001US.

Respectfully submitted,

/ck3/

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